The Carlyle Group

Real Estate Investments



March 36, 2010

VA DEQ
Valley Regional Office
Susan Oakes
13901 Crown Court
Woodbridge, VA 22193-1453

Re: Reissuance of VPDES Permit No. VA0029769
Po River Water & Sewer WWTP

Mr. Oakes:

Enclosed are 3 copies and an original of the entire renewal paperwork package for the reissuance of the VPDES for Po River Water & Sewer WWTP. You'll notice that I have change its previous name from Indian Acres ( The system it serves) to Po River (the owner).

- Public Notice Billing Info
- VPDES/VPA Permit Billing Infor. Form
- Waiver Request & Removal Request
- Notification to Harrisonburg-Rockingham Reg. Sewer Authority
- VPDES Sewage Sludge Permit App.
- VPDES Permit App. Addendum
- EPA Form 2A

If there are any questions please contact me at (919) 960-5739 or e-mail at Tarmatt@aol.com.

Sincerely,

Matthew E. Raynor
Environmental Director

10006 Hammock Bend • Chapel Hill, NC 27517 • (919) 960-5739 • Fax (919) 960-5793 • E-Mail • Tarmatt@aol.com

# Po River Water and Sewer Company

VA DEQ
Northern Virginia Regional Office
VPDES Permitting Section/ Susan Oakes
13091 Crown Court
Woodbridge, VA 22193-1453

Re: Waiver Effluent Temperature and Fecal Coliform Reporting and Ending Hydrogen Sulfide and Ground Water Monitoring for VPDES Permit No. VA0029769 Po River W&S Co. WWTP

Dear Ms. Oakes:

We are requesting a waiver for Effluent Temperature reporting and Fecal Coliform testing at Po River's WWTP.

The treatment process does not result in elevated effluent temperatures in excess of WQS criteria allowances due to the natural processes and extended detention time in a lagoon treatment setting.

We currently monitor for TRC to demonstrate adequate effluent disinfection. We believe the cost of fecal coliform testing is not necessary. We currently test for Ecoli once a quarter.

Hydrogen Sulfide testing has proven that our outfall does not add any to the receiving waters. In 5 years of testing we have been below quantitative limits. This is a costly test and provides no reportable data.

We would also like to resubmit our previous request for ground water testing to be removed. No new monitoring has detected any Fecal (<1),TOC or Nitrogen any result higher than 0.1 mg/l or BQL. This monitoring is costly and historical monitoring shows no signs from leakage from the lagoon.

If there are any questions pertaining to either parameter waiver or parameter eliminations please contact me at once.

Respectfully,

Matthew Raynor
Environmental Director

Data Evaluation

pH

The reported pH's for the wells have little variability. All reported results are between 6.1 and 6.3. The average result is 6.2 for all three wells. The standard is 5.5 – 8.5.

Conductivity

There is no established groundwater standard for conductivity.

Based on the results available to date, the upgradient well (normally distributed data set) has a lower conductivity than the downgradient wells. Based on the MW-3 data an upper tolerance limit has been determined to be 123. Most of the reported results for the two downgradient wells are greater. Conductivity is a measure of a water's ability to conduct an electric current. Conductivity increases with increasing amount and mobility of ions. Conductivity is an indirect measure of the presence of dissolved solids. The monitoring program also includes TDS monitoring. The conductivity may indicate a presence of more ions in the downgradient wells and the direct measurements (TDS, nitrate & chlorides) will be evaluated to determine significance.

Total Dissolved Solids

The available data sets include a wide range of results. The upgradient well (MW-3) results are normally distributed. The reported results have a mean of 188 and a standard deviation of 135. The data ranges from 20 to 432. An upper tolerance interval limit ( 95% confidence with 99% coverage) is 776. Based on the interval for the background data, there is no significant, routine difference noted between upgradient and downgradient results. There is one reported result for MW-1 which is considerably different from the remainder of the data set. This was the initial reported result of 4132. Subsequent results for MW-1 ranged from 80 to 452. The initial MW-1 result is a suspected outlier. Data for MW-2 ranged from 64 to 564. The results for all wells include results which are above the groundwater criteria of 250 ppm. Groundwater criteria constituents are naturally occurring and as noted, the data do not indicate a significant difference between the upgradient and downgradient results.

Nitrate-N

The data sets for Nitrate-N (all three wells)are not normally distributed. There is a high number of "<" or BDL results in all three data sets. The results for all of the wells are consistently well below the 5 mg/l numeric groundwater standard.

Chlorides

The upgradient data set is not normally distributed. This initial evaluation is limited to a direct, numeric comparison to the groundwater criteria. A comparison of the results for all three wells to the criteria of 25 mg/l indicates all reported results are numerically below this groundwater criteria. Results for the

upgradient, MW-3 range from 2 to 3.5. Results for MW-1 range from 7 to 13.5 and results for MW-2 range from 8 to 14.

Total Organic Carbon

The data set is missing a 2006 results for TOC. A lab change was initiated to obtain the required monitoring. Data is available for three sampling (1 in 2007 and 2 in 2008) events and all but one result is reported as BDL. A result of 1.1 was reported for MW-1 in June, 2008. All of the results are below the TOC groundwater criteria of 10 ppm.

Fecal Coliform

The data sets are not normally distributed due to the high number of "<" reports. It is noted that there was one high (1600)result reported for MW-1. The next result was <2. There is no noted consistent presence of fecal coliform reported in any of the wells. Replacing the reported "<" results with a value of 1 allows a geometric mean to be calculated. The geometric means determined are: MW-1 – 4.66; MW-2 – 1.39 and MW-3 – 1.68. The data sets are dominated by "<" results which appears to indicate that the wastewater lagoon is not having a significant impact. It is assumed that if there were impact the results in the downgradient wells would consistently be a detected high presence.

Ammonia-N

Ammonia-N was analyzed during the first sampling event (2006) and twice during 2007 and twice during 2008. The QL for ammonia-N is 0.1 ppm. The available data is not normal. To determine if the reported results are significantly different from the QL (since the standard is lower than the QL) a confidence limit was determined for each data set. Each of the confidence intervals includes the QL thus it may be assumed that the reported results are not significantly different than the QL. The "<" results were evaluated using the QL. As a second evaluation the half detection (or 0.5) was used and the confidence intervals again contain the QL. The reported results for all of the wells include values <QL and very close to QL.

Based on the data results to date, there is no specific indication that the wastewater facilities are impacting the shallow groundwater in it's immediate vicinity. The upgradient and downgradient results do not indicate an overall significant difference in the monitored parameters. The upgradient well is lower in conductivity; however, a review of the monitored constituents which are more specific to "wastewater" do not indicate the detected presence of a concern. Constituents have been evaluated through comparison to groundwater standards and criteria where appropriate. As noted for ammonia-N the QL is greater than the standard so a confidence interval was constructed and comparison made to QL.

It is noted that the downgradient wells are located down from the lagoon between the facility and the river. The area between the facility and the river was limited and the wells were installed in locations approved by the Department. The upgradient well is located near the entrance to the facility, it is between the road and the lagoon.

## PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Matthew E. Raynor

Owner: Po River Water and Sewer Co.

Applicant's Address: 10006 Hammock Bend

Chapel Hill, NC 27517

Agent's Telephone Number: (919) 960-5739

Authorizing Agent: _____
*Signature*

VPDES Permit No. VA0029769
Po River Water and Sewer WWTP

Please return to:

**Susan Mackert**
VA-DEQ, NRO
13901 Crown Court
Woodbridge, VA 22193-1453
Fax: (703) 583-3821

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

*Form Approved 1/14/99*
*OMB Number 2040-0086*

FORM 2A NPDES

# NPDES FORM 2A APPLICATION OVERVIEW

## APPLICATION OVERVIEW

**Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.**

## BASIC APPLICATION INFORMATION:

**A.** **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

**B.** **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

**C.** **Certification.** All applicants must complete Part C (Certification).

## SUPPLEMENTAL APPLICATION INFORMATION:

**D.** **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

**E.** **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

**F.** **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

**G.** **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

**ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)**

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

Form Approved 1/14/99
OMB Number 2040-0086

# BASIC APPLICATION INFORMATION

## PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

**All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.**

**A.1. Facility Information.**

Facility Name: Po River Water and Sewer Company

Mailing Address: 10006 Hammock Bend
Chapel Hill, NC 27517

Contact Person: Matthew Raynor

Title: Environmental Director

Telephone Number: (919) 960-5739

Facility Address (not P.O. Box): 6437 Morris Road
Spotsylvania, VA 22553

**A.2. Applicant Information.** If the applicant is different from the above, provide the following:

Applicant Name: _____

Mailing Address: _____

_____

Contact Person: _____

Title: _____

Telephone Number: (  )

**Is the applicant the owner or operator (or both) of the treatment works?**

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

**A.3. Existing Environmental Permits.** Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

| | | | |
|---|---|---|---|
| NPDES | VA0029769 | PSD | |
| UIC | | Other | |
| RCRA | | Other | |

**A.4. Collection System Information.** Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

| Name | Population Served | Type of Collection System | Ownership |
|---|---|---|---|
| Indian Acres | 4000 | Separate | Public Utility |
| | | | |
| | | | |

**Total population served** 4000

**A.5. Indian Country.**

a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

**A.6. Flow.** Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.100 mgd

| | | Two Years Ago | Last Year | This Year |
|---|---|---|---|---|
| b. | Annual average daily flow rate | 0.035 mgd | 0.040 mgd | 0.044 mgd |
| c. | Maximum daily flow rate | 0.98 mgd | 0.162 mgd | 0.586 mgd (snow) |

**A.7. Collection System.** Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer _____ %

**A.8. Discharges and Other Disposal Methods.**

a. Does the treatment works discharge effluent to waters of the U.S.? ☒ Yes ☐ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent 0

iii. Combined sewer overflow points 0

iv. Constructed emergency overflows (prior to the headworks) 0

v. Other _____ 0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharge to surface impoundment(s) 0 mgd

Is discharge ☒ continuous or ☐ intermittent?

c. Does the treatment works land-apply treated wastewater? ☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ mgd

Is land application ☐ continuous or ☐ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ☐ Yes ☒ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

_____

If transport is by a party other than the applicant, provide:

Transporter Name _____

Mailing Address _____

_____

Contact Person _____

Title _____

Telephone Number ( ) _____

For each treatment works that receives this discharge, provide the following:

Name _____

Mailing Address _____

_____

Contact Person _____

Title _____

Telephone Number ( ) _____

If known, provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

_____

Annual daily volume disposed by this method: _____

Is disposal through this method ☐ continuous or ☐ intermittent?

## WASTEWATER DISCHARGES:

**If you answered "yes" to question A.8.a,** complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

**A.9. Description of Outfall.**

a. Outfall number: 001

b. Location: Thornburg (City or town, if applicable); 22553 (Zip Code)
Spotsylvania (County); VA (State)
N38*08'55.3" (Lattitutde); W77*32'34.4" (Longitude)

c. Distance from shore (if applicable): 1 ft.

d. Depth below surface (if applicable): .6 ft.

e. Average daily flow rate: .032 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ☐ Yes ☒ No (go to A.9.g.)
If yes, provide the following information:
Number f times per year discharge occurs: _____
Average duration of each discharge: _____
Average flow per discharge: _____ mgd
Months in which discharge occurs: _____

g. Is outfall equipped with a diffuser? ☐ Yes ☒ No

**A.10. Description of Receiving Waters.**

a. Name of receiving water: Po River

b. Name of watershed (if known): Chesapeake Bay
United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin (if known): York River Basin
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

d. Critical low flow of receiving stream (if applicable)
acute _____ cfs chronic _____ cfs

e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of $CaCO_3$

**A.11. Description of Treatment**

a. What levels of treatment are provided? Check all that apply.

☒ Primary ☐ Secondary

☐ Advanced ☐ Other. Describe: Aerated Sewage Lagoon

b. Indicate the following removal rates (as applicable):

| | | |
|---|---|---|
| Design BOD5 removal or Design CBOD5 removal | 85 | % |
| Design SS removal | 85 | % |
| Design P removal | unknown | % |
| Design N removal | unknown | % |
| Other | | % |

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Chlorine

If disinfection is by chlorination is dechlorination used for this outfall? ☒ Yes ☐ No

d. Does the treatment plant have post aeration? ☒ Yes ☐ No

**A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.**

Outfall number: 001

| PARAMETER | MAXIMUM DAILY VALUE | | AVERAGE DAILY VALUE | | |
|---|---|---|---|---|---|
| | Value | Units | Value | Units | Number of Samples |
| pH (Minimum) | 7.1 | s.u. | | | |
| pH (Maximum) | 8.6 | s.u. | | | |
| Flow Rate | 0.16 | mgd | .036 | mgd | 12 months |
| Temperature (Winter) | | | | | |
| Temperature (Summer) | | | | | |

* For pH please report a minimum and a maximum daily value

| POLLUTANT | | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|
| | | Conc. | Units | Conc. | Units | Number of Samples | | |
| **CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS** | | | | | | | | |
| BIOCHEMICAL OXYGEN DEMAND (Report one) | BOD5 | 12 | mg/l | 5.4 | mg/l | 52 | 5210B | |
| | CBOD5 | | | | | | | |
| FECAL COLIFORM | | 1 | N/CML | 1 | N/CML | | 1603 | |
| TOTAL SUSPENDED SOLIDS (TSS) | | 27 | mg/l | 9.9 | mg/l | 52 | 2540D | |

**END OF PART A.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

## BASIC APPLICATION INFORMATION

### PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

**All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).**

B.1. Inflow and Infiltration. **Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.**

1000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

No plans, I&I is at a minimum for a lagoon system

**B.2. Topographic Map.** Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

**B.3. Process Flow Diagram or Schematic.** Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

**B.**4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: ( ) _____

Responsibilities of Contractor: _____

**B.5. Scheduled improvements and Schedules of Implementation.** Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

_____

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

| Implementation Stage | Schedule MM/DD/YYYY | Actual Completion MM/DD/YYYY |
|---|---|---|
| - Begin Construction | / / | / / |
| - End Construction | / / | / / |
| - Begin Discharge | / / | / / |
| - Attain Operational Level | / / | / / |

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly:

## B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number:

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | AVERAGE DAILY DISCHARGE | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|
| | Conc. | Units | Conc. | Units | Number of Samples | | |
| **CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS** | | | | | | | |
| AMMONIA (as N) | | | | | | | |
| CHLORINE (TOTAL RESIDUAL, TRC) | | | | | | | |
| DISSOLVED OXYGEN | | | | | | | |
| TOTAL KJELDAHL NITROGEN (TKN) | | | | | | | |
| NITRATE PLUS NITRITE NITROGEN | | | | | | | |
| OIL and GREASE | | | | | | | |
| PHOSPHORUS (Total) | | | | | | | |
| TOTAL DISSOLVED SOLIDS (TDS) | | | | | | | |
| OTHER | | | | | | | |

**END OF PART B.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

*Form Approved 1/14/99*
*OMB Number 2040-0086*

# BASIC APPLICATION INFORMATION

## PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

**Indicate which parts of Form 2A you have completed and are submitting:**

☒ Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Matthew Raynor / Environmental Director

Signature: 

Telephone number: (919) 960-5739

Date signed: 3-26-2010

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

## SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

Form Approved 1/14/99
OMB Number 2040-0086

## SUPPLEMENTAL APPLICATION INFORMATION

### PART D. EXPANDED EFFLUENT TESTING DATA

**Refer to the directions on the cover page to determine whether this section applies to the treatment works.**

**Effluent Testing: 1.0 mgd and Pretreatment Works.** If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| **METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.** | | | | | | | | | | | |
| ANTIMONY | | | | | | | | | | | |
| ARSENIC | | | | | | | | | | | |
| BERYLLIUM | | | | | | | | | | | |
| CADMIUM | | | | | | | | | | | |
| CHROMIUM | | | | | | | | | | | |
| COPPER | | | | | | | | | | | |
| LEAD | | | | | | | | | | | |
| MERCURY | | | | | | | | | | | |
| NICKEL | | | | | | | | | | | |
| SELENIUM | | | | | | | | | | | |
| SILVER | | | | | | | | | | | |
| THALLIUM | | | | | | | | | | | |
| ZINC | | | | | | | | | | | |
| CYANIDE | | | | | | | | | | | |
| TOTAL PHENOLIC COMPOUNDS | | | | | | | | | | | |
| HARDNESS (AS CaCO3) | | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

**FACILITY NAME AND PERMIT NUMBER:**

**Po River Water & Sewer Company VA0029769**

*Form Approved 1/14/99*
*OMB Number 2040-0086*

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| **VOLATILE ORGANIC COMPOUNDS** | | | | | | | | | | | |
| ACROLEIN | | | | | | | | | | | |
| ACRYLONITRILE | | | | | | | | | | | |
| BENZENE | | | | | | | | | | | |
| BROMOFORM | | | | | | | | | | | |
| CARBON TETRACHLORIDE | | | | | | | | | | | |
| COLORBENZENE | | | | | | | | | | | |
| CHLOROBIDBROMO-METHANE | | | | | | | | | | | |
| CHLOROETHANE | | | | | | | | | | | |
| 2-CHLORO-ETHYLVINYL ETHER | | | | | | | | | | | |
| CHOLOROFORM | | | | | | | | | | | |
| DICHLOROBROMO-METHANE | | | | | | | | | | | |
| 1,1-DICHLOROETHANE | | | | | | | | | | | |
| TRANS-1,2-DICHLORO-ETHYLENE | | | | | | | | | | | |
| 1,1-DICHLOROPROPANE | | | | | | | | | | | |
| ETHYLBENZENE | | | | | | | | | | | |
| METHYL BROMIDE | | | | | | | | | | | |
| METHYL CHLORIDE | | | | | | | | | | | |
| METHYLENE CHLORIDE | | | | | | | | | | | |
| 1,1,2,2-TETRACHLORO-ETHANE | | | | | | | | | | | |
| TETRACHLORO-ETHYLENE | | | | | | | | | | | |
| TOLUENE | | | | | | | | | | | |

**FACILITY NAME AND PERMIT NUMBER:**

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*OMB Number 2040-0086*

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| 1,1,1-TRICHLOROETHANE | | | | | | | | | | | |
| 1,1,2-TRICHLOROETHANE | | | | | | | | | | | |
| TRICHLOROETHYLENE | | | | | | | | | | | |
| VINYL CHLORIDE | | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer | | | | | | | | | | | |
| | | | | | | | | | | | |
| **ACID-EXTRACTABLE COMPOUNDS** | | | | | | | | | | | |
| P-CHLORO-M-CRESOL | | | | | | | | | | | |
| 2-CHLOROPHENOL | | | | | | | | | | | |
| 2,4-DIMETHYLPHENOL | | | | | | | | | | | |
| 4,6-DINITRO-O-CRESOL | | | | | | | | | | | |
| 2,4-DINITROPHENOL | | | | | | | | | | | |
| 2-NITROPHENOL | | | | | | | | | | | |
| 4-NITROPHENOL | | | | | | | | | | | |
| PENTA CHLOROPHENOL | | | | | | | | | | | |
| PHENOL | | | | | | | | | | | |
| 2,4,6-TRICHLORO PHENOL | | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer | | | | | | | | | | | |
| | | | | | | | | | | | |
| **BASE-NEUTRAL COMPOUNDS** | | | | | | | | | | | |
| ACENAPHTHENE | | | | | | | | | | | |
| ACENAPHTYLENE | | | | | | | | | | | |
| ANTHRACENE | | | | | | | | | | | |
| BENZIDINE | | | | | | | | | | | |
| BENZO(A) ANTHRACENE | | | | | | | | | | | |
| BENZO(A)PYRENE | | | | | | | | | | | |

**FACILITY NAME AND PERMIT NUMBER:**

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*Form Approved 1/14/99*
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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| 3.4 BENZO-FLUORANTHENE | | | | | | | | | | | |
| BENZO(GHI)PERYLENE | | | | | | | | | | | |
| BENZO(K)FLUORANTHENE | | | | | | | | | | | |
| BIS (2-CHLORO ETHOXY) METHANE | | | | | | | | | | | |
| BIS (2-CHLOROETHYL)-ETHER | | | | | | | | | | | |
| BIS (2-CHLOROISO-PROPYL) ETHER | | | | | | | | | | | |
| BIS (2-ETHYLHEXYL) PHTHALATE | | | | | | | | | | | |
| 4-BROMOPHENYL PHENYL ETHER | | | | | | | | | | | |
| BUTYL BENZYL PHTHALATE | | | | | | | | | | | |
| 2-CHLORO NAPHTHALENE | | | | | | | | | | | |
| 4-CHLORPHENYL PHENYL ETHER | | | | | | | | | | | |
| CHRYSENE | | | | | | | | | | | |
| DI-N-BUTYL PHTHALATE | | | | | | | | | | | |
| DI-N-OCTYL PHTHALATE | | | | | | | | | | | |
| DIBENZO(A,H) ANTHRACENE | | | | | | | | | | | |
| 1,2-DICHLORO BENZENE | | | | | | | | | | | |
| 1,3-DICHLORO BENZENE | | | | | | | | | | | |
| 1,4-DICHLORO BENZENE | | | | | | | | | | | |
| 3,3-DICHLORO BENZIDINE | | | | | | | | | | | |
| DIETHYL PHTHALATE | | | | | | | | | | | |
| DIMETHYL PHTHALATE | | | | | | | | | | | |
| 2,4-DINITROTOLUENE | | | | | | | | | | | |
| 2,6-DINITROTOLUENE | | | | | | | | | | | |
| 1,2-DIPHENYLHYDRAZINE | | | | | | | | | | | |

**FACILITY NAME AND PERMIT NUMBER:**

**Po River Water & Sewer Company VA0029769**

*Form Approved 1/14/99*
*OMB Number 2040-0086*

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

| POLLUTANT | MAXIMUM DAILY DISCHARGE | | | | AVERAGE DAILY DISCHARGE | | | | | ANALYTICAL METHOD | ML/MDL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Conc. | Units | Mass | Units | Conc. | Units | Mass | Units | Number of Samples | | |
| FLUORANTHENE | | | | | | | | | | | |
| FLUORENE | | | | | | | | | | | |
| HEXACHLORO BENZENE | | | | | | | | | | | |
| HEXACHLOROBUT ADIENE | | | | | | | | | | | |
| HEXACHLOROCYCLO-PENTADIENE | | | | | | | | | | | |
| HEXA CHLOROETHANE | | | | | | | | | | | |
| INDENO(1,2,3-CD) PYRENE | | | | | | | | | | | |
| ISOPHORONE | | | | | | | | | | | |
| NAPHTHALENE | | | | | | | | | | | |
| NITROBENZENE | | | | | | | | | | | |
| N-NITROSODI-N-PROPYLAMINE | | | | | | | | | | | |
| N-NITROSODI-METHYLAMINE | | | | | | | | | | | |
| N-NITROSODI-PHENYLAMINE | | | | | | | | | | | |
| PHENANTHRENE | | | | | | | | | | | |
| PYRENE | | | | | | | | | | | |
| 1,2,4-TRICHLOROBENZENE | | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer | | | | | | | | | | | |
| | | | | | | | | | | | |
| Use this space (or a separate sheet) to provide information on other metals requested by the permit writer | | | | | | | | | | | |
| | | | | | | | | | | | |

**END OF PART D.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

Form Approved 1/14/99
OMB Number 2040-0086

# SUPPLEMENTAL APPLICATION INFORMATION

## PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

**E.1. Required Tests.**

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

☐ chronic ☐ acute

**E.2. Individual Test Data.** Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

| | Test number: _____ | Test number: _____ | Test number: _____ |
|---|---|---|---|
| a. Test information. | | | |
| Test Species & test method number | | | |
| Age at initiation of test | | | |
| Outfall number | | | |
| Dates sample collected | | | |
| Date test started | | | |
| Duration | | | |
| b. Give toxicity test methods followed. | | | |
| Manual title | | | |
| Edition number and year of publication | | | |
| Page number(s) | | | |
| c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used. | | | |
| 24-Hour composite | | | |
| Grab | | | |
| d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each. | | | |
| Before disinfection | | | |
| After disinfection | | | |
| After dechlorination | | | |

**FACILITY NAME AND PERMIT NUMBER:**

**Po River Water & Sewer Company VA0029769**

*Form Approved 1/14/99*
*OMB Number 2040-0086*

| | Test number: _____ | Test number: _____ | Test number: _____ |
|---|---|---|---|
| e. Describe the point in the treatment process at which the sample was collected. | | | |
| Sample was collected: | | | |
| f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both | | | |
| Chronic toxicity | | | |
| Acute toxicity | | | |
| g. Provide the type of test performed. | | | |
| Static | | | |
| Static-renewal | | | |
| Flow-through | | | |
| h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source. | | | |
| Laboratory water | | | |
| Receiving water | | | |
| i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used. | | | |
| Fresh water | | | |
| Salt water | | | |
| j. Give the percentage effluent used for all concentrations in the test series. | | | |
| | | | |
| | | | |
| | | | |
| k. Parameters measured during the test. (State whether parameter meets test method specifications) | | | |
| pH | | | |
| Salinity | | | |
| Temperature | | | |
| Ammonia | | | |
| Dissolved oxygen | | | |
| l. Test Results. | | | |
| Acute: | | | |
| Percent survival in 100% effluent | % | % | % |
| $LC_{50}$ | | | |
| 95% C.I. | % | % | % |
| Control percent survival | % | % | % |
| Other (describe) | | | |

| Chronic: | | | |
|---|---|---|---|
| NOEC | % | % | % |
| $IC_{25}$ | % | % | % |
| Control percent survival | % | % | % |
| Other (describe) | | | |
| m. Quality Control/Quality Assurance. | | | |
| Is reference toxicant data available? | | | |
| Was reference toxicant test within acceptable bounds? | | | |
| What date was reference toxicant test run (MM/DD/YYYY)? | / / | / / | / / |
| Other (describe) | | | |

**E.3. Toxicity Reduction Evaluation.** Is the treatment works involved in a Toxicity Reduction Evaluation?

☐ Yes ☐ No If yes, describe: _____

**E.4. Summary of Submitted Biomonitoring Test Information.** If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: ____/____/____ (MM/DD/YYYY)

Summary of results: (see instructions)

**END OF PART E.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

Form Approved 1/14/99
OMB Number 2040-0086

## SUPPLEMENTAL APPLICATION INFORMATION

### PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

**All treatment works receiving discharges from significant industrial users or which receive RCRA,CERCLA, or other remedial wastes must complete part F.**

### GENERAL INFORMATION:

**F.1.** **Pretreatment program.** Does the treatment works have, or is subject ot, an approved pretreatment program?

☐ Yes ☐ No

**F.2.** **Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs).** Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

### SIGNIFICANT INDUSTRIAL USER INFORMATION::

**Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.**

**F.3.** **Significant Industrial User Information.** Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

_____

**F.4.** **Industrial Processes.** Describe all the industrial processes that affect or contribute to the SIU's discharge.

_____

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

**F.6.** **Flow Rate.**

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

**F.7.** **Pretreatment Standards.** Indicate whether the SIU is subject to the following:

a. Local limits ☐ Yes ☐ No

b. Categorical pretreatment standards ☐ Yes ☐ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

**F.8.** **Problems at the Treatment Works Attributed to Waste Discharge by the SIU.** Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☐ No If yes, describe each episode.

## RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

**F.9.** **RCRA Waste.** Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

☐ **Yes** ☐ **No (go to F.12)**

**F.10** **Waste transport.** Method by which RCRA waste is received (check all that apply):

☐ Truck ☐ Rail ☐ Dedicated Pipe

**F.11** **Waste Description.** Give EPA hazardous waste number and amount (volume or mass, specify units).

| EPA Hazardous Waste Number | Amount | Units |
|---|---|---|
| | | |
| | | |
| | | |

## CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

**F.12** **Remediation Waste.** Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.) ☐ No

**F.13** **Waste Origin.** Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is excepted to originate in the next five years).

**F.14** **Pollutants.** List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

**F.15** **Waste Treatment.**

a. Is this waste treated (or will be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous ☐ Intermittent If intermittent, describe discharge schedule.

**END OF PART F.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

Po River Water & Sewer Company VA0029769

Form Approved 1/14/99
OMB Number 2040-0086

# SUPPLEMENTAL APPLICATION INFORMATION

## PART G. COMBINED SEWER SYSTEMS

**If the treatment works has a combined sewer system, complete Part G.**

**G.1. System Map.** Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

**G.2. System Diagram.** Provide a diagram, either in the map provided in G.1 or on a separate drawing, of the combined sewer collection system that includes the following information.

a. Location of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

## CSO OUTFALLS:

**Complete questions G.3 through G.6 once for each CSO discharge point.**

**G.3 Description of Outfall.**

a. Outfall number _____

b. Location _____
(city or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

☐ Rainfall ☐ CSO pollutant concentrations ☐ CSO frequency

☐ CSO flow volume ☐ Receiving water quality

f. How many storm events were monitored during the last year? _____

**G.4. CSO Events.**

a. Give the number of CSO events in the last year.

_____ events (☐ actual or ☐ approx.)

b. Give the average duration per CSO event.

_____ hours (☐ actual or ☐ approx.)

c. Give the average volume per CSO event.

_____ million gallons (☐ actual or ☐ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year

_____ Inches of rainfall

**G.5. Description of Receiving Waters.**

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United State Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

**G.6. CSO Operations.**

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

_____

**END OF PART G.**
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.**

Additional information, if provided, will appear on the following pages.

**VPDES Permit Application Addendum**



1. **Entity to whom the permit is to be issued:** Po River Water & Sewer Company
*Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.*

2. **Is this facility located within city or town boundaries?** Y / ~~X~~
Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.

3. **What is the tax map parcel number for the land where this facility is located?** 62A

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0

5. ALL FACILITIES: **What is the design average flow of this facility?** 0.1 MGD
Industrial facilities: **What is the max. 30-day avg. production level (include units)?** N/A

**In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels?** Y / ~~X~~

**If "Yes", please specify the other flow tiers (in MGD) or production levels:** _____
*Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?*

6. **Nature of operations generating wastewater:**
Domestic / campground

10% of flow from domestic connections/sources
Number of private residences to be served by the wastewater treatment facilities: __ 0 __ 1-49 __ 50 or more

0 % of flow from non-domestic connections/sources

7. **Mode of discharge:** X Continuous __ Intermittent __ Seasonal
Describe frequency and duration of intermittent or seasonal discharges:
_____

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
X Permanent stream, never dry
__ Intermittent stream, usually flowing, sometimes dry
__ Ephemeral stream, wet-weather flow, often dry
__ Effluent-dependent stream, usually or always dry
__ Lake or pond at or below the discharge point
__ Other: _____

9. **Approval Date(s):**
**O & M Manual** Jan 2006 **Sludge/Solids Management Plan** N/A

Have there been any changes in your operations or procedures since the above approval dates? Y / ~~N~~

# VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

## SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? __Yes _X_No

   Will this facility derive a material from sewage sludge? __Yes _X_No

   If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? __Yes ___No

   Will sewage sludge from this facility be applied to the land? __Yes __No

   If you answered No to both questions above, skip Section C.

   If you answered Yes to either, answer the following three questions:

   a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
   __Yes __No

   b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? __Yes __No

   c. Will sewage sludge from this facility be sent to another facility for treatment or blending? __Yes __No

   If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? __Yes _X_No

   If Yes, complete Section D (Surface Disposal).

## SECTION A. GENERAL INFORMATION

**All applicants must complete this section.**

1. Facility Information.
   a. Facility name: Po River Water and Sewer Company
   b. Contact person: Matthew Raynor
      Title: Environmental Director
      Phone: ( 919 ) 960-5739
   c. Mailing address:
      Street or P.O. Box: 10006 Hammock Bend
      City or Town: Chapel Hill State: NC Zip: 27517
   d. Facility location:
      Street or Route #: 6437 Morris Rd
      County: Spotsylvania
      City or Town: Thornburg State: VA Zip: 22553
   e. Is this facility a Class I sludge management facility? ___Yes __X No
   f. Facility design flow rate: 0.100 mgd
   g. Total population served: 4000
   h. Indicate the type of facility:
      ___ Publicly owned treatment works (POTW)
      _X_ Privately owned treatment works
      ___ Federally owned treatment works
      ___ Blending or treatment operation
      ___ Surface disposal site
      ___ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:
   a. Applicant name:
   b. Mailing address:
      Street or P.O. Box:
      City or Town: _____ State: _____ Zip:
   c. Contact person:
      Title:
      Phone: ( )
   d. Is the applicant the owner or operator (or both) of this facility?
      _____owner _____ operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
      _____ facility _____ applicant

3. Permit Information.
   a. Facility's VPDES permit number (if applicable): VA0029769
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
      Permit Number: Type of Permit:
      _____
      _____

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ___Yes __X No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __Yes ___No
If yes, provide the following for each contractor (attach additional pages if necessary).
Name: _____
Mailing address:
Street or P.O. Box:
City or Town: _____ State: _____ Zip:
Phone: ( )
Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

| POLLUTANT | CONCENTRATION (mg/kg dry weight) | SAMPLE DATE | ANALYTICAL METHOD | DETECTION LEVEL FOR ANALYSIS |
|---|---|---|---|---|
| Arsenic | | | | |
| Cadmium | | | | |
| Chromium | | | | |
| Copper | | | | |
| Lead | | | | |
| Mercury | | | | |
| Molybdenum | | | | |
| Nickel | | | | |
| Selenium | | | | |
| Zinc | | | | |

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

_X_Section A (General Information)
____Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
__Section C (Land Application of Bulk Sewage Sludge)
__Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title

Signature Exec. Director Date Signed

Telephone number 919-960-5739

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

## SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

**Complete this section if your facility generates sewage sludge or derives a material from sewage sludge**

1. Amount Generated On Site.
   Total dry metric tons per 365-day period generated at your facility:_____ dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name:
   b. Contact Person:
      Title:
      Phone ( )
   c. Mailing address:
      Street or P.O. Box:
      City or Town:_____ State:_____ Zip:
   d. Facility Address:
      (not P.O. Box)
   e. Total dry metric tons per 365-day period received from this facility:_____ dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

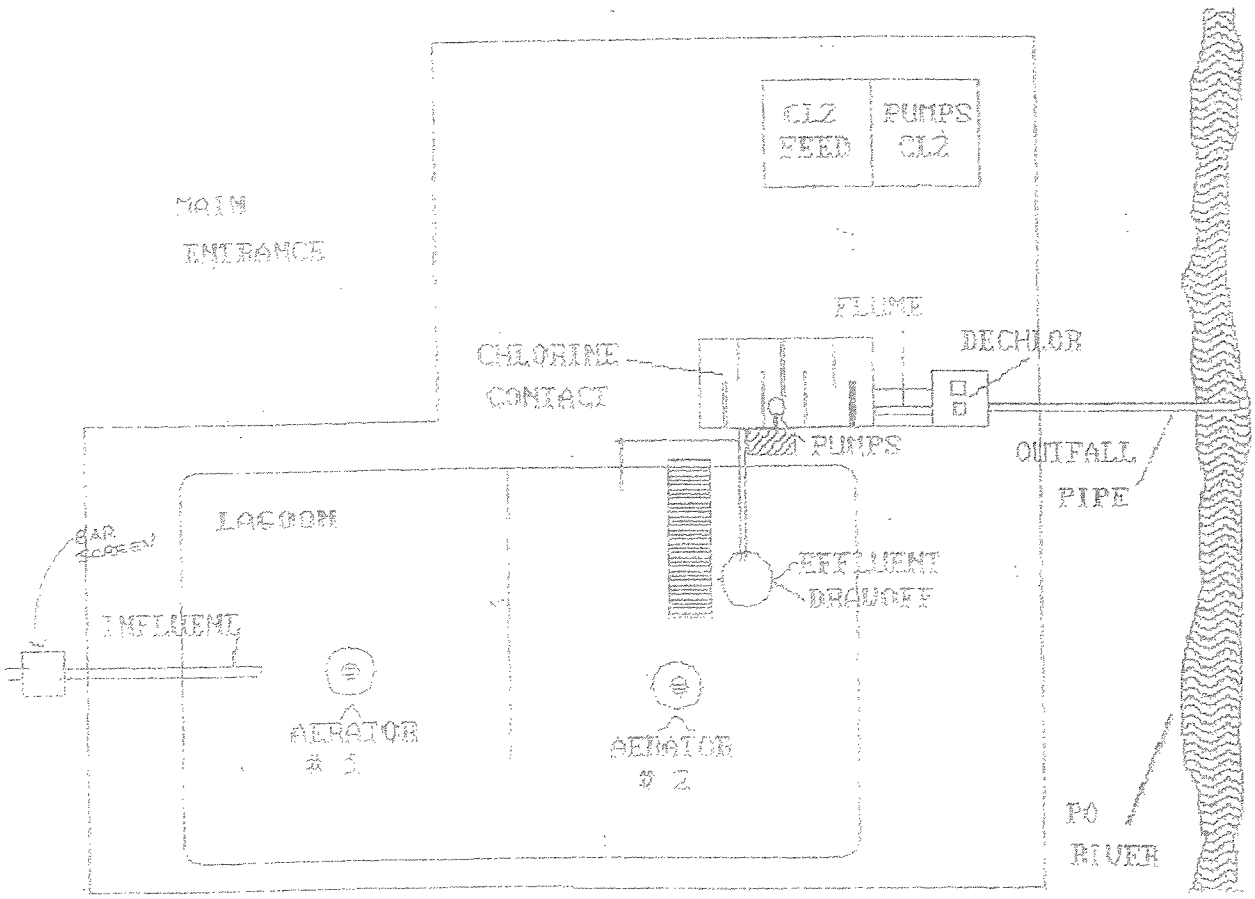
3. Treatment Provided at Your Facility.
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ___Class A ___Class B ___Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      ___ Option 1 (Minimum 38 percent reduction in volatile solids)
      ___ Option 2 (Anaerobic process, with bench-scale demonstration)
      ___ Option 3 (Aerobic process, with bench-scale demonstration)
      ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ___ Option 5 (Aerobic processes plus raised temperature)
      ___ Option 6 (Raise pH to 12 and retain at 11.5)
      ___ Option 7 (75 percent solids with no unstabilized solids)
      ___ Option 8 (90 percent solids with unstabilized solids)
      ___ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:

   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above:

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
   **(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)**
   a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
      _____ dry metric tons
   b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
      __Yes __No

# Indian Acres Sewage Treatment Plant




Attachment 2

Attachment 3


Spotsylvania Quad
# 170 A